ABSTRACT

Integrated Connection Admission Control and Bandwidth on Demand for a Multiple Access Asynchronous Network

An integrated connection admission control (CAC) and bandwidth on demand control (BoD) system for allocating the resource of a common medium uplink of a multiple access (MA) asynchronous network segment, wherein the CAC allocates static resource to all virtual connections (VCs) or groupings of VCs accepted by the CAC and books dynamic resource to the VCs or groupings of VCs that require guaranteed dynamic resource, and the BoD allocates dynamic resource to VCs or to groupings of VCs requesting dynamic resource in such a way that all VCs or groupings of VCs requesting dynamic resource are dynamically allocated requested dynamic resource up to at least the guaranteed dynamic resource which has been booked for them by the CAC.